

Curriculum Ideas for Teachers

1979

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Teaching Core Content and Skills of the Canada Course in Basic Level Programs



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Geography
Intermediate
Division

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Introduction

Educators will recognize that students in this division represent an immense range of abilities and levels of maturity. Furthermore, each student experiences a unique pattern of physical, emotional, and intellectual growth during the adolescent years. . . . Although expectations for mastery of content, depth of understanding, and competence in skills may be modified to allow each student to progress in a manner consistent with his or her ability and maturity, all courses must retain a focus on the goals of geographic studies. . . .

Geography, Intermediate Division, 1977, p. 4.

The suggestions contained in this document, including essential ideas and sample activities, are designed to assist teachers in planning units and classroom activities that will enable students in basic-level programs to achieve the objectives in core content and skill development outlined for the Canada course.

The essential ideas are set in a framework of selected topics. Activities are suggested that have been designed for a basic-level program. The topics do *not* constitute complete units nor do they represent a “course of study”. However, they could form an integral part of individual units, which would then become a major part of a course on Canada. The matrix at the end of the pamphlet illustrates the relationship between key geographical concepts, core skills, and core content and the topics chosen to be highlighted.



Nature of the Students

Students in a basic-level geography course generally have one or more of the following characteristics:

- They have difficulty in learning traditional academic content. This difficulty may be caused by mental, social, physical, or emotional factors.
- Their academic learning in the past has been slower than that of the average student. Therefore, they are likely to be deficient in geographical knowledge and skills and to lack experience in the systematic examination of attitudes and values.
- They need to practise communication and thinking skills that are usually mastered at an earlier age; these include reading, writing, listening, speaking, observing, and recording skills.
- They need to learn and practise the skills required to cope with people, places, and the social and economic organization of their environment. Such skills are referred to in this document as “life skills” and include such things as orienting oneself, reading labels and brochures, making informed decisions about how to spend one’s money, working with peers and adults, and developing empathy for the values and customs of others.



The following questions were used to test the usefulness of the suggestions and sample learning activities in this publication. Teachers may find them helpful when designing other learning activities.

– *The geographical question.* Are the core content and skills presented in a form consistent with the needs and abilities of these Grade 9 and 10 students? Do the essential ideas encourage students to see the world in terms of our human relationship with the earth?

– *The relevance question.* Will students find the content and skills relevant? Do the essential ideas relate to the students' everyday living? Will they be seen as being useful in the near future? Are opportunities provided for the development of student attitudes and values?

– *The methodology question.* Do the activities start with the particular and move towards the general (the inductive approach)? Are a variety of methods and teaching resources used? Are the essential ideas in each sample activity confined to one or two concepts with a minimum of facts to be memorized? Is a new skill isolated and broken down into its component parts?

– *The practicality question.* Are the learning activities practical rather than theoretical? Do they involve tangible items such as maps, pictures, models, artifacts? Are the students actively involved in the learning process? Are the activities designed to appeal to different senses – touch, taste, and smell, as well as hearing and sight?

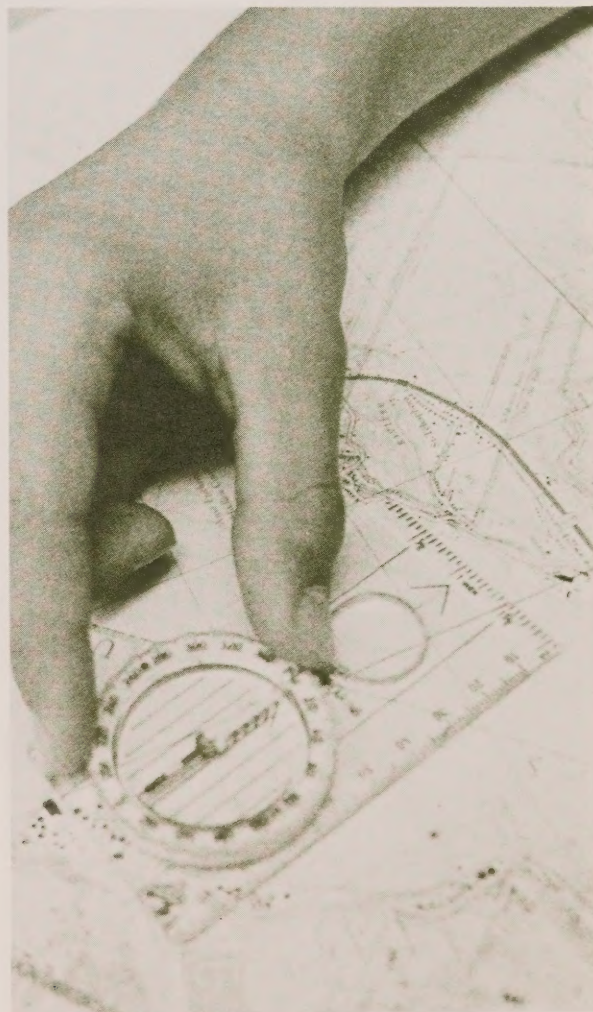
– *The development question.* Do the data supplied by the teacher provide a starting point from which students can develop the particular knowledge or skills to be emphasized?

– *The reinforcement question.* Are basic skills and ideas that are taught in mathematics and language arts reinforced in a geographic framework? Can the learnings in geography reinforce learnings related to home life, recreational activities, present or future employment, or other school subjects?

A basic skill of geography is the ability to observe, interpret, and make generalizations from a variety of non-verbal sources of information. It is essential that geography teachers be aware of any factors that may limit the success of their students in basic-level programs in the use of maps.

Students in basic-level programs often have difficulty generalizing from the particular, translating data from one form to another, identifying patterns, and recognizing spatial relationships. In addition, these students often have difficulty with shapes, basic direction, and the juxtaposition of land and water; some may exhibit frustration resulting from low perceptual ability.

In light of these limitations, it is important that base maps prepared for the students provide essential information only. Land and water should be clearly indicated, and colour used whenever possible. In addition, the amount of information that students are expected to plot on a map or graph should be carefully considered when designing activities.



Student Evaluation

Students in the Intermediate Division represent a wide range of talents, intellectual capabilities, and levels of maturity. Over a period of time each may demonstrate a capacity to handle increasingly difficult tasks followed by periods of apparent regression. Regular, carefully-planned evaluation will assist a teacher to chart student progress with a degree of precision and to plan subsequent learning experiences with some confidence about their appropriateness.

Geography, Intermediate Division, 1977, p. 46.

The techniques to be employed in the evaluation of students in basic-level programs should be designed with great care to ensure a reliable measure of student achievement. A variety of forms of evaluation, consistent with the nature of the students, should be employed.

The evaluation of the students' work, on a daily basis if possible, will provide the constructive criticism and positive reinforcement they need to proceed with confidence. Since the students' ability to recall large amounts of subject matter is often limited, evaluation should take place at the end of small sections of work.

If specific skills are to be evaluated, it is advisable to supply the students with essential information to ensure that a lack of knowledge does not prevent them from demonstrating their competency in these skills.

If traditional evaluation techniques such as tests are used, care should be taken to ensure that it is the geographic material and not solely the students' ability to read and write that is being evaluated.

When measuring a student's progress, it is usually more valuable to use as a yardstick growth in the individual's own ability, as expressed in his/her performance over time, than some external standard.

Teacher observation of the student's improvement in oral communication skills and the ability to work with others should form a significant part of the evaluation process.

Local Studies

If students are to comprehend the many ways in which people interact with their environment, no locality can provide more immediate opportunities for discovery of patterns or explanation of processes than the one in which the students live.

Geography, Intermediate Division, 1977, p. 26.

Teachers may wish to develop a unit based on the local area, or local studies may be integrated into other units of study. In either case, students will be able to build upon their knowledge of the local area and to perceive the relationships that exist between the community and the province and between the community and the country. Throughout the course, the local community may be considered as a natural extension of the geography classroom.

These students are likely to remain in the community in which they have been raised, when they become adults. Any activity that adds to their awareness of the community should be considered favourably.

Local studies should include an examination of the following essential ideas:

- the characteristics of the local community in terms of site, land use, economic base, and culture;
- the interdependence of the above characteristics;
- relationships among the local community, the province, and the nation.

Students should acquire the following life skills:

- the ability to orient themselves to their community by map reading, using the yellow pages, locating emergency assistance, and identifying recreational facilities;
- the ability to read labels intelligently;
- the ability to comparison-shop.

Strategy 1. Local Land-Use Mapping

An understanding of areal differentiation can be developed by having students construct a land-use map of a portion of a street near the school. Through such an exercise, the students will begin to identify patterns in the community.

Land-use mapping skills can be developed by beginning with a three-dimensional model of the street. In the first stage of mapping it will be easier for the teacher to cope with individual questions and problems in a classroom situation. Such classroom activities are valuable before the students actually become involved in preparing a sketch map in the field.

For this exercise the teacher should prepare a three-dimensional model of the study area. On this model different buildings may be represented by blocks of wood or plasticine.

The students can use the model to:

- identify the different types of buildings and land uses;
- devise a simple classification scheme for land use, e.g., residential, business, parks, parking, etc.;
- develop a suitable legend to represent their land-use classification.

Once students have acquired the basic concept of land-use mapping using the model, they may be taken out of the classroom for a field investigation of the study area. Each student should be provided with an outline map of the area showing street and lot lines. The students should then gather information about the uses of lots and buildings found within the study area.

On returning to the classroom, the students should produce an accurate land-use map, complete with legend, direction indicator, information about scale, and suitable title.

Groups of students could then map the land uses within a city block, along a concession line, in a shopping plaza, or on a farm. The class should then compare the patterns that are evident on the second group of maps with the patterns of land use on the map of the area around the school.

Strategy 2. Gathering Data From the Community

It is useful to relate studies in other parts of Canada to the local community. Students could examine the significance of grain products in our diets, for example, as a starting point or as a conclusion to a study of grain farming in Canada. The activity could begin with a review of the major types of grain grown in Canada. The teacher would send or take the class, divided into groups of three students each, to the local supermarket to examine labels in the various sections to note which grains are used in the following product categories. Each group could be responsible for one of these categories:

- soups and canned meats
- cookies
- baking supplies
- pet foods
- breakfast cereals
- pastas
- others



Using the information collected, the students could complete a chart similar to Table 1 by placing a large “X” on the chart if a grain constitutes a major component of the product and a small “x” if a grain is a minor component.

Table 1: Use of Grains in Food Products

	Rye	Barley	Oats	Wheat	Corn	Others
Soups and canned meats						
Cookies						
Baking supplies						
Breakfast cereals						

Once the chart has been completed, it can serve as a catalyst for discussion of a number of topics. The usefulness of laws related to the labelling of food products in Canada may be investigated. For example, students might consider the ruling that ingredients must be listed in order of volume, from the greatest amount to the least. Discussion of other topics will also be stimulated: topics such as the difference in price and quality of similar products, advertising, and marketing. All of these considerations should serve to link the activity with studies in consumer education, family studies, and quantity cooking.

The chart can also be used to develop the idea of interdependence between urban and rural areas by using questions such as:

- What did you learn about the composition of the products investigated?
- What is one new fact that you learned from the chart?
- Where do most people live who use these products?
- Where do most people live who grow these grains?
- In what ways do urban areas depend on the agricultural community?
- How do rural areas depend on the urban community?

This activity is one example of how the local community can be used as a source of information on topics related to other parts of the country. Similar opportunities exist to link other topics of the course to the local area. These include visits to farms (agriculture), conservation areas (resource management), factories (industry), power plants (energy), mill sites (historical geography), and the Central Business District of a large city (urban studies). Simple, inexpensive, and meaningful work in the field can reap many benefits – improving the students’ skills of observation, creating a positive approach to group work, collecting raw data to be analysed in the classroom.

With the current concern over the energy crisis, this topic will be both meaningful and practical for students. The Ministry of Education publication *Energy in Society, 1977* provides excellent source material, student activities, and a very practical resource list.

- The essential ideas associated with this topic include:
- the types of energy;
 - the location of energy sources in Canada;
 - an awareness of the renewable or non-renewable nature of the resources;
 - the significance to Canadians of events outside the country;
 - the role of transportation in energy supply;
 - people’s dependence on energy.

Strategy 1. Introductory Activity to a Unit on Energy

The topic can be introduced by a simple values-clarification technique entitled “Twenty Things I Like To Do”. This activity provides a values-oriented approach to the topic and also illustrates our dependence on energy.

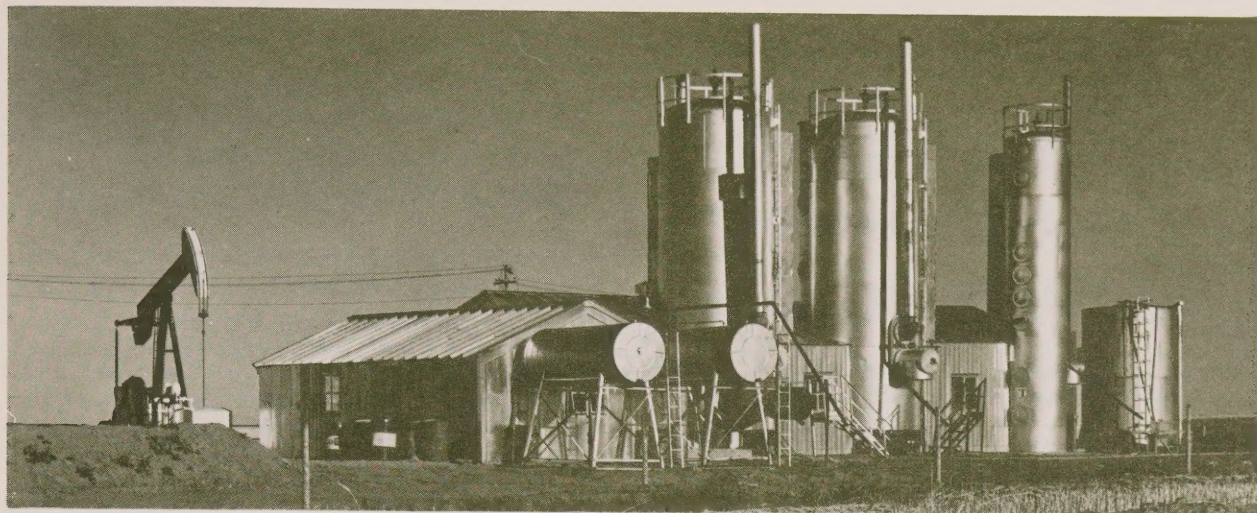
Students are asked to list on their own sheet of paper twenty things they like to do. Beside each statement, they are then asked to indicate the following, using the appropriate symbols:

- those things that would *not* have been on their list five years ago (use symbol N5);
- those things that would *not* be on (a) their mother’s list (use symbol NM), (b) their father’s list (use symbol NF);
- those things that require energy other than their own (use the symbol E).

- Students are then asked to:
- rank-order their five favourite items; and
 - write down three statements about what they learned from this activity. (For example: “I learned that the things I like to do require large amounts of energy.”)

Students should be encouraged to talk about their personal choices. The experience and knowledge gained from this exercise can be used to heighten their awareness of energy issues and can lead to specific energy-related topics such as:

- different types of energy
- sources of energy
- the changing role of energy in Canadian society
- the importance of energy in our day-to-day experiences
- energy imports and exports



Strategy 2. Importing Oil

A study of crude-oil sources will give students a glimpse of Canada's links with the rest of the world. A base map of the world and the statistics in Table 2 could be used to indicate the quantities of oil imported from various countries and the routes used in transporting oil to Canada.

Under the guidance of the teacher the students should:

- shade and label the countries exporting oil to Canada. The overhead projector, student atlases, wall maps, or the globe will be effective in assisting students with this section of the exercise;

- construct bar graphs using the given statistics and place the bars on the map with the base of each bar on the appropriate country;

- connect the exporting countries to Canada on the map with lines following the approximate routes taken by the oil carriers. (Teachers may wish to make the width of the lines proportional to the amount of oil shipped.)

The construction of the map will develop and reinforce certain basic skills — using scale, changing information from one form to another, representing data visually, and locating countries of the world. The map can then be used as an introduction to such topics as the following:

- where oil is produced in Canada and why;
- how much of Canada's oil is imported;
- why Canada exports oil to the United States while it also imports some oil from abroad;
- oil price increases by OPEC (Organization of Petroleum-Exporting Countries);
- the problems associated with an OPEC oil embargo;
- crude-oil carriers and oil-spill disasters — their location and effects on the environment.

Table 2: Canadian Petroleum Imports

A recent typical month in millions of barrels
(1 barrel = 160 L)

Venezuela	94
Saudi Arabia	57
Iran	44
Iraq	7
United Arab Emirates	2.2
Nigeria	1.6
Kuwait	1.5
Trinidad	1.3

Energy issues can be dealt with not only as a separate topic, but also along with other topics studied throughout the year. In each case, teachers should encourage students to explore the value-related issues, using accurate data. Here are some examples of integrated topics:

- A unit on the automobile might lend itself to an exploration of pollution control.
- A unit on Native peoples might include a study of the implications of pipeline construction in the Arctic or the effects of large-scale hydro-electric development such as the James Bay Project.
- A unit on industry might investigate the sources of different types of energy and their effects on the environment.
- A unit on local studies could discover ways of reducing energy consumption in the home or school.

Industry

Most products – automobiles, furniture, clothes, foods, electronic equipment, records – are produced by workers in factories and purchased by consumers. In our society we are dependent on others to produce almost every product we need or desire. It is important that students examine this aspect of the Canadian scene.

The essential ideas to be developed in a study of an industry are:

- where and why the industry is located in a particular place;
- the source of different materials used in the manufacturing process;
- the positive and negative effects of the industry on the community or region in which it is located with reference to the economy and the environment.

The students’ natural interest in cars and the fact that Ontario accounts for 90 per cent of Canadian-made cars are good reasons for studying the automotive industry. Some values clarification may be introduced with respect to the students’ choices of alternative modes of transportation, use and conservation of energy, and the wise use of related resources.

Several life skills may be developed or reinforced within this topic, including:

- setting priorities;
- decision-making;
- orienting and finding one’s way through the community and region.

Strategy 1. Big Cars Versus Small Cars

To establish a common base from which to proceed, it is worth while discussing topics such as the following:

- the type of car owned by the students’ parents;
- the type of car the students wish/hope to buy;
- the influence of the automobile as a status symbol.

Following this discussion, the class may be divided into groups of three for the following research activity. The purpose of this group work is to give the students experience in gathering data and sharing their information with other members of the group. The results of their combined efforts may then be used to compare the social and economic consequences of big- and small-car purchases. The students are required to assess alternatives and perhaps make some value judgements based on acquired facts.

The skills that may be developed in this activity include:

- noting detailed information from different sources (e.g., information from sources such as local car dealerships or magazines such as *Consumer Reports*);
- sharing information with others;
- generalizing from the particular;
- establishing priorities.

Each group will obtain the information about models produced by one or more car manufacturer as outlined in Table 3. This information can then be transferred to a master copy on a large wall chart or summarized and reproduced so that everyone in the class can examine the combined efforts of all of the groups.

Table 3: Comparison of Automobiles

Size	Vehicle Name
– overall length	
– overall width	
– curb weight	
Engine displacement	
– in litres	
Fuel economy	
– litres per hundred kilometres (L/100 km)	
Location of manufacturing plant	
Basic cost	

Using the combined acquired information, the students may then be asked to:

- prepare a radio commercial, newspaper advertisement, or television commercial for the automobile they have researched;
- write a paragraph indicating their choice of car and reasons for their choice;
- locate the major manufacturers and explain the location of the Canadian companies;
- rank-order the cars in terms of economy, energy consumption, and pollution control;
- compare public transport and private transport in terms of costs and benefits to both the individual and the environment.

Strategy 2. Trends in Automobile Sales

Statistical data can be displayed on a graph for comparison purposes. This exercise will develop graphing skills and give the students further practice in graph interpretation.

Table 4: Retail Sales of Automobiles in Canada – 1963-1977

	Cars Sold Manufactured in Canada and the U.S.	Total No. of Cars Sold
1963	502 000	550 000
1964	550 000	610 000
1965	630 000	702 000
1966	625 000	695 000
1967	602 000	680 000
1968	632 000	730 000
1969	633 000	740 000
1970	501 000	620 000
1971	580 000	750 000
1972	650 000	850 000
1973	780 000	980 000
1974	795 000	950 000
1975	830 000	990 000
1976	795 000	952 000
1977	778 000	990 000

Source: Statistics Canada data, 1977.

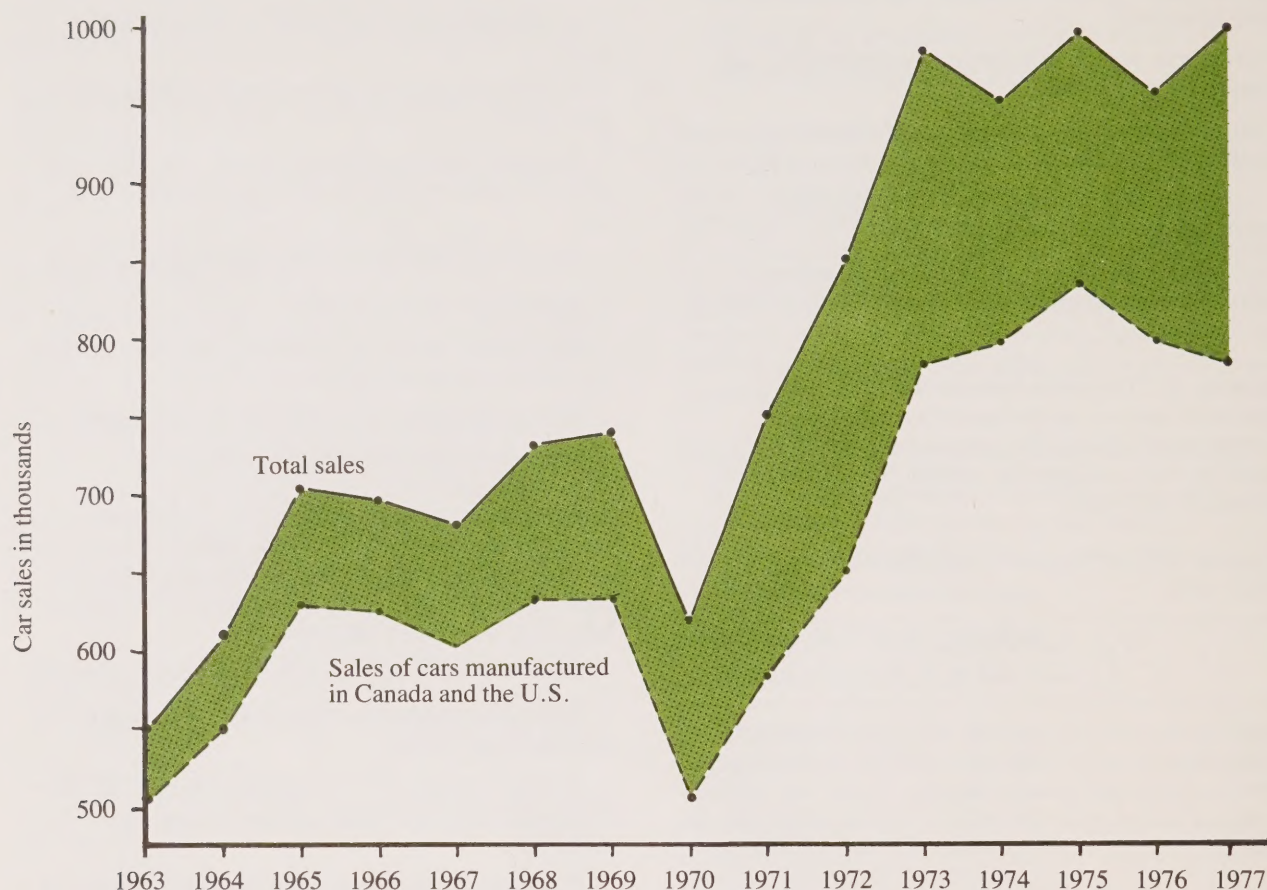
Using Table 4, students should construct a line graph to show the proportion of foreign cars sold to North American cars sold. The following instructions will help students construct their graphs:

- Draw a horizontal and vertical axis on the graph paper.
- Establish time along the horizontal axis (year 1963 to year 1977).
- Establish quantity along the vertical axis, beginning with 500 000 along the base line and 1 000 000 at the top.
- Plot the North American-manufactured car sales.
- Join the dots to form a line.
- Plot the total number of passenger-car sales, using a different colour or symbol.
- Join the dots in each case to form two line graphs.
- Shade in the area between the two lines.

The completed graphs (see Figure 1) can be used to identify sales patterns in the North American automobile industry and to lead into other activities related to this topic. Questions such as the following may be used to help students interpret the graph:

- What does the shaded portion of the graph represent?
- Why have there been variations in new car sales over the last fifteen years?
- In what way was 1977 a significant year for the sale of North American and overseas manufactured automobiles?
- How have energy conservation and pollution control affected consumer preferences in recent years? What other manufactured products are being designed so that they use less energy (e.g., compare microwave ovens and conventional ranges)?

Figure 1: Annual Retail Sales of Automobiles in Canada



Source: Derived from Statistics Canada data.

Other topics that may emerge from an initial study of the automobile industry are:

- planning and mapping a family camping trip;
- the costs of owning and operating a vehicle compared to the cost of using public transit;
- the multiplier effect of the automobile industry on the economy;
- employment opportunities and working conditions in the industry — assembly lines, shift work, etc;
- the delivery of automobiles from the manufacturer to the dealer;
- the influence of the automobile on the urban and rural environment;
- the importance of truck transport in the movement of freight.

Note: The videotape program *The Concrete Corridor* centres on the role that transportation has played in the development of the area between Quebec City and Windsor. The area is seen through the eyes of two people who work for a large trucking company. This provides a novel approach to the geography of Canada's "industrial heartland" and raises questions about the stereotypes of truck drivers and their families. The program is part of the OECA series *Like No Other Place* (see resource list).

Agriculture

As a topic within a unit on agriculture, “Wheat Farming on the Prairies” could be used to develop many basic geographical and life skills and several key concepts. The essential ideas for this topic include:

- the location of major wheat-growing areas;
- the suitability of the Prairies for the growing of wheat;
- methods employed in agricultural production, such as the use of large-scale machinery, fallowing, the conservation of water, and the consolidation of small farm units;
- the location of markets for Canadian wheat crops;
- the significance of the wheat crop in the Canadian economy.

Strategy 1. Breads and Cereals

This activity, which could be used to introduce the topic, involves the examination and tasting of various types of breads and/or cereals. Students should be provided with small samples of each and asked to comment on their appearance and taste.

Student preferences and the actual composition in terms of grains should be noted for each of the samples.

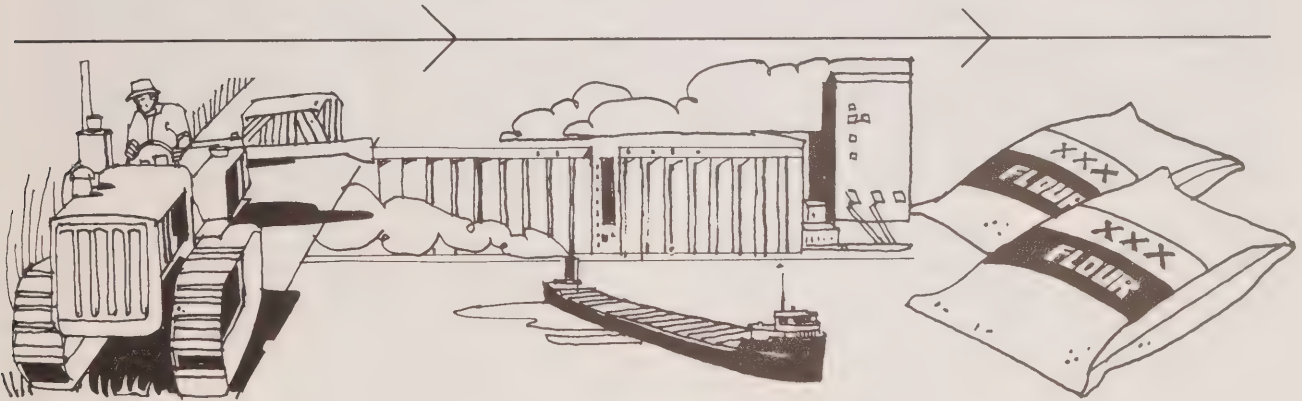
The teacher can use the bread or cereal as a starting point and trace the product back to its origin as a grain crop on the Prairies. The stages involved in the manufacture of the product, the location of the manufacturing process, the methods of transport used between stages, and the transportation routes involved should be noted. Students can summarize this information by constructing a pictorial flow chart (Figure 2) that traces the wheat (or other grains) in the products from the Prairies to the local store.

Figure 2: Flow Chart

Wheat farm on the Prairies

**Grain elevator
and flour mill**

**The flour we
bake with**



This information can be transferred to an overhead transparency map of part of Canada (Figure 3), on which the locations of the activities recorded on the flow chart are shown.

Figure 3: Movement of Wheat in Canada.



The film *The Changing Wheat Belt* can be used to link this introductory exercise and a more detailed study of wheat farming on the Prairies.

Teachers may wish as well to use the map and table to illustrate the movement of wheat from major Canadian ports to foreign users.

Table 5: Wheat Loaded and Unloaded at Major Canadian Ports in 1976
In (000) tonnes. Figures rounded off.

Port	International		Coastwise	
	Loaded	Unloaded	Loaded	Unloaded
Vancouver	3,415		2	
Port Cartier	1,913	393		1,606
Thunder Bay	116		8,400	
Montreal	1,112	51		1,810
Quebec City	1,256	8		1,320
Halifax	270			57
Baie Comeau	1,050	210		962
Sorel	670	71		587
Trois Rivieres	540	24	25	543
Toronto			25	285
Churchill ¹	720	29	20	

¹Figures for Churchill, Manitoba include all commodities, not only wheat.

Figure 4: A Prairie Landscape.



Strategy 2. Reading a Picture

Pictures may be used in the teaching of geography as the basic source of data or as a supplement to textual material. Reading a picture, as opposed to merely looking at it, requires a variety of skills. Students need to develop the ability to:

- be aware of an overall impression;
- identify significant details;
- associate what is seen in the picture with what is already known, e.g., use their knowledge of farming in the local area to help them read a picture of farming on the Prairies;
- see the relationship between two items in the picture;
- see the relationship between an item in the picture and an item not shown in the picture, e.g., realize that in order to understand the significance of transportation routes they have to find out where those routes lead;
- make inferences from what can be seen about things that cannot be seen; and
- recognize patterns.

For this topic, an oblique, aerial, full-colour picture of a typical prairie town with grain elevators and surrounding farmlands should be selected. Pictures such as the one in Figure 4 may be found in textbooks, on calendars, and on filmstrips. It is helpful if all students have a copy of the picture.

Such a picture may be used to develop the following ideas:

- the unique nature of the prairie landscape — size and shape of the farms, the settlement pattern, and the flatness and vastness of the plains;
- the influence of the prairie landscape on agriculture;
- the interdependence of town and farm;
- the role of transportation links.

Activities and questions such as the following will help students to develop both these ideas and basic picture-reading skills.

- Describe what you see in the picture.
- How would you describe the horizon in the picture? How does it compare with the horizon outside your school?
- What words would you use to describe the shape (relief) of the land (a) in the picture, (b) outside your school?
- Describe the fields in the picture.
- Why do the fields appear to be different colours, one from another?
- Is more than one crop grown? How do you know?
- What evidence can you find that might indicate the size of the farms?
- If you owned one of the farms in this picture, would you buy many machines? Why? Would you find large or small machines most useful? Explain. (This question may be supplemented by the use of pictures of farm machinery obtainable from manufacturers such as Massey Ferguson, International Harvester, or John Deere.)
- Are there any trees in the picture? Where are they? Why? Why are there no trees elsewhere?
- Compare the town lots with those in your community. What are the major differences?
- What are the major types of land use? (A discussion of the purpose of a grain elevator is appropriate here.)
- Compile a list of the jobs that would be available in the town. What evidence is there in the photograph for the jobs on your list? What jobs might be available in the town that are not necessarily indicated in the photograph (e.g., doctor, mechanic)?
- What modes of transport can you see?
- Would it be easier or harder to build a road here than in your neighbourhood? Why?
- What do the roads suggest about the volume of traffic? Would you expect to see more or fewer cars on the main roads in your area?
- If your farm were 50 km from the grain elevator, how would you get your wheat there? What evidence in the picture supports your answer?
- Why are the grain elevators located beside both the road and the railroad?
- If this town is in southern Saskatchewan, to what Canadian port might the grain be transported for export?
- Suppose the railroad company decides that it is no longer profitable to use this branch line. How would this decision affect (a) the elevator operators, (b) the people in town who provide services to the farmer, (c) the cost to the farmer of transporting grain to the nearest elevator, (d) the farmer's profits?

– What effect would the closing down of a large industry in your local area have on your town or city?

The information from the picture could be summarized using Table 5. Students should be encouraged to use comparative terms (more, smaller, farther) in the development of the table.

Table 6: Comparison of Landscapes

Relief of the land	Prairies	Local Area
Horizon		
Road building		
Town lot size		
Farm size		
Modes of transportation		
What people do for a living		
Farm product(s)		

There are a variety of resources upon which to base activities that may follow the analysis of the photograph. The following are some suggestions:

- A climate graph of Regina could be used to confirm inferences from the picture (e.g., that the area is one of low precipitation). The graph could also be used to identify problems such as drought.
- Pamphlets from the Saskatchewan Department of Agriculture provide information on problems such as rust, drought, and hail.
- The film *The Drylanders* shows the problems of wheat farming and helps the students to see the inhabitants of the Prairies as people rather than just as producers of wheat.

Wheat is only one commodity on the Canadian agricultural scene. Other topics that a teacher may wish to develop in a unit on agriculture, or in a regional study, are fruit production in the Okanagan Valley or the Niagara Peninsula, cheese production in eastern Ontario, cattle ranching in Alberta, and market gardening in the Holland Marsh area of Ontario. As part of a local study, teachers may wish to investigate poultry raising, egg production, or hog production.

Since most Canadians live in towns and cities, it is useful to examine the concepts of “urban growth” and “urbanization”. Students in all regions of Canada are likely to live in or visit a major city at some time in their lives. Even if they are presently in what may be termed a rural setting, their lives are linked to the urban environment.

The essential ideas that can be conveyed in a topic such as this include:

- how areas within a city differ from one another;
- how cities have changed over time;
- the advantages and disadvantages of living in cities;
- the location of major cities in Canada and an explanation for their location;
- factors affecting the location of cities in Canada.

Strategy 1. What Is a City?

The nature of a city can best be illustrated by using visual materials to emphasize the differences between a rural and an urban setting. Students might be asked to focus on differences in the size and variety of buildings, the density of land use, and the volume of traffic, and on the presence of multicultural indicators.

Reference may be made to the second strategy in the section entitled “Agriculture” in this support document for suggestions for the effective use of pictures in the classroom. Pictures are a valuable aid in establishing student empathy for the urban environment.

Strategy 2. Urbanization

Canadian cities have changed over the past one hundred years. To some degree this is a reflection of the dramatic shift in the proportions of the rural and urban populations. By examining data from a statistical table (see Table 6) and transferring them to a graph (see Figure 5), students will gain a clearer understanding of the process that has taken place.

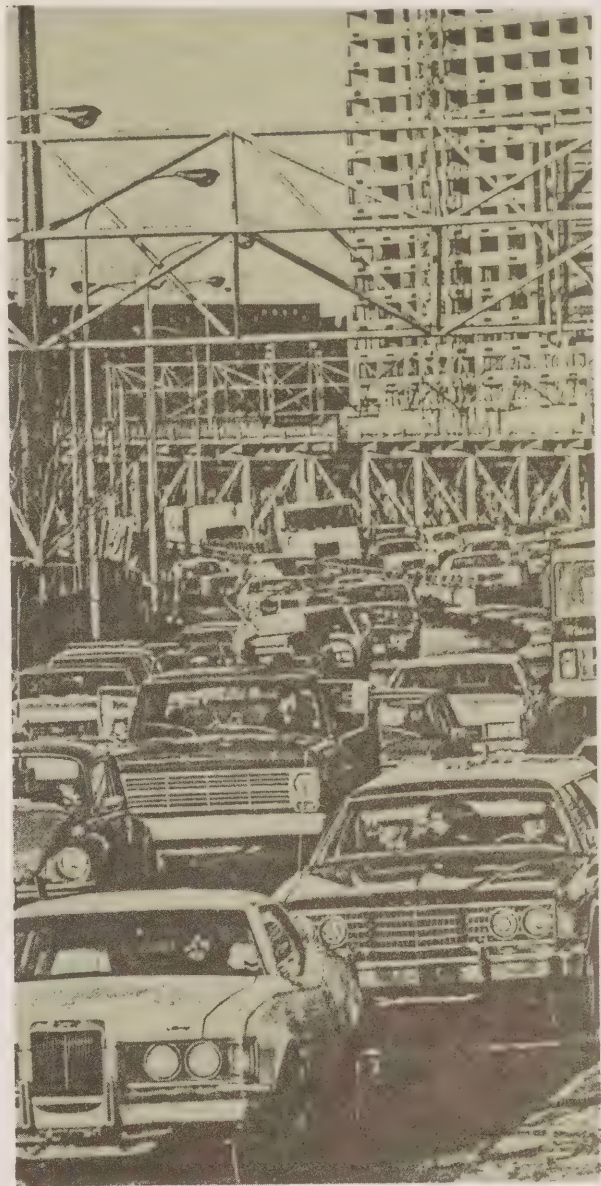


Table 7: The Changing Canadian Population, 1871-1971 (in thousands)

	Total Population	Rural Population Number	Urban Population %	Urban Population Number	Urban Population %
1871	3 689	3 014	81.7	675	18.3
1881	4 325	3 317	76.7	1 008	23.3
1891	4 833	3 393	70.2	1 440	29.8
1901	5 371	3 497	65.1	1 874	34.9
1911	7 207	4 194	58.2	3 013	41.8
1921	8 788	4 622	52.6	4 166	47.4
1931	10 377	4 929	47.5	5 448	52.5
1941	11 507	5 098	44.3	6 409	55.7
1951	14 009	5 267	37.6	8 742	62.4
1961	18 238	5 526	30.3	12 712	69.7
1971	21 568	5 155	23.9	16 413	76.1

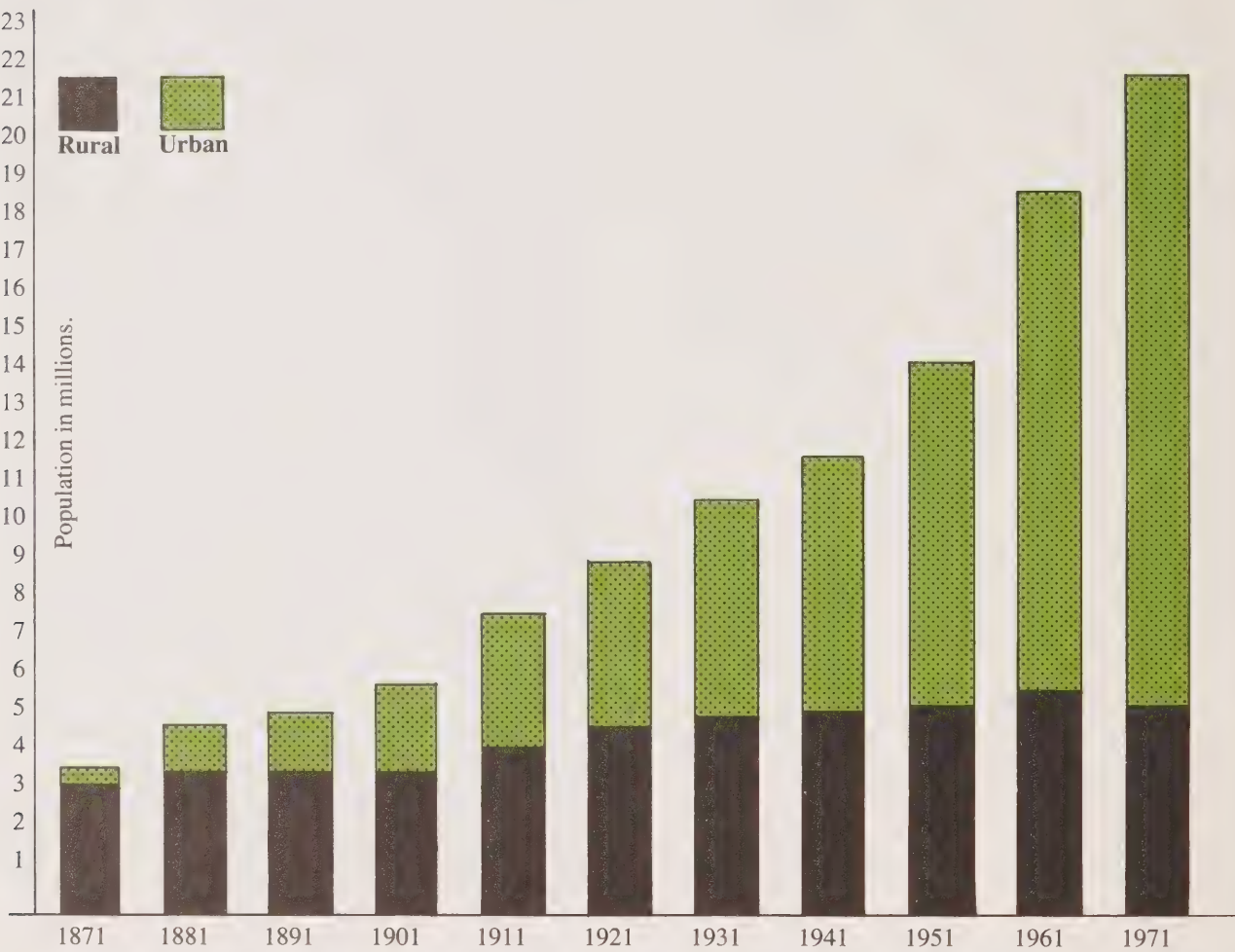
The students can prepare divided bar graphs by using the statistics and following these instructions:

– Plot the total Canadian population for each year as a series of vertical bars.

– Divide each bar into two sections by plotting the total rural population for each year.

– Colour or shade in the *top* portion of each bar.

Figure 5: Canadian Population, 1871-1971 – Rural and Urban Distribution



Source: Derived from Statistics Canada data.

The completed bar graphs can be used to examine the shift in Canada's urban-rural population in the past century. The following activities may help students understand the basic patterns expressed on the graph:

- If the bottom portion of each bar represents rural population, what does the top portion represent?
- What do the words “urban” and “rural” mean?
- In what type of environment, urban or rural, did the majority of Canadians live in 1871?
- In what year were the rural and urban populations approximately equal? How did you obtain your answer from the patterns on the bar graph?
- Where did the majority of Canadians live in 1971?
- Write a sentence to describe what has been happening to the rural-urban balance of population. (Such a description will be a definition of the process of *urbanization*.) Refer back to the table of statistics. How do the columns showing the per cent of rural and urban population verify your answer?
- Suggest several occupations that might have been typical of Canadians one hundred years ago. Were these occupations primarily urban or rural in nature?
- If your grandparents lived in Canada, did they work in a rural or an urban environment?
- If your parents are immigrants to Canada, where did they first live in Canada? Where did they work? Where do they live and work today?
- Would new immigrants be likely to settle on a farm or in a city? Why?

Strategy 3. Location of Major Canadian Cities

A strategy for the study of contemporary spatial patterns of settlement in Canada is a natural extension of the previous activity.

Table 8: Population of Canadian Census Metropolitan Areas, 1976

Calgary	469 917
Chicoutimi-Jonquière	128 643
Edmonton	554 228
Halifax	267 991
Hamilton	529 371
Kitchener	272 158
London	270 383
Montreal	2 802 485
Oshawa	135 196
Ottawa-Hull	693 288
Quebec	542 158
Regina	151 191
Saint John, N.B.	112 974
St. Catharines-Niagara	301 921
St. John's, Nfld.	143 390
Saskatoon	133 750
Sudbury	157 030
Thunder Bay	119 253
Toronto	2 803 101
Vancouver	1 166 348
Victoria	218 250
Windsor	247 582
Winnipeg	578 217

Source: Statistics Canada, *1976 Census of Canada*, Volume 1 – Population: Geographic Distributions, Statistics Canada Catalogue 92-806.

Figure 6: Base Map of Canada.



Students should use **Table 8**, **Figure 6**, and an atlas to:

- classify the cities by population into three categories: under 250 000, 250 000 to 1 000 000, and over 1 000 000;
- locate each city on the map with a dot according to its size category (., •, ●);
- label each city on the map;
- underline the names of capital cities;
- add a second line under the name of the national capital;
- add a title and legend to the map.

This map may be used to investigate the following questions. Students can work in small groups to discuss their answers before sharing them with the entire class.

- Which provinces and territories have no large cities?
- Which two provinces have the largest number of cities?
- How many of the twenty-three cities listed are found within 200 km of the United States border?
- How many of the twenty-three cities are found within 200 km of the Great Lakes?
- How might climate be a factor in the location of many Canadian cities?
- Which cities are in a good position for trade and communication with European countries?

- Which cities are in a good position for trade and communication with Asian nations such as Japan and China?
- Can you find a reason why Alberta has two large cities that are not close to the United States or to major Canadian ports?

Strategy 4. Costs and Benefits of Living in a City

The value of working together in groups and sharing ideas can be illustrated by using the following technique to develop students’ understanding of the positive and negative aspects of city life. The students can, individually or in small groups:

- list five advantages and five disadvantages of living in large cities;
- collect photographs from magazines or newspapers to illustrate their perceptions;
- explain how each photograph illustrates a particular advantage or disadvantage.

The class as a whole can then:

- summarize on a large wall chart the “costs” and “benefits” of city living;
- select the five most common ideas for each category;
- compare the class list with individual or group lists;
- discuss the differences in individual perceptions of what is a “cost” and what is a “benefit”

Regional Study

As soon as students study places that are remote from their own experience, it is important to find links to help them relate the known to the unknown. These links can be as simple as an examination of the impression of the Bluenose on our ten-cent coin as a way of introducing the Maritimes. In the same way, salmon found in the local supermarket or building products from the lumberyard might provide an interesting starting point for a study of the West Coast. The Canadian North can be introduced through an examination of Inuit sculptures or art, by reference to historical exploration, or by a discussion of the survival techniques used in the North.

For the purposes of this document, the Maritimes is used as an example of a region. However, the same technique can be as easily applied to a study of the Prairies, the Western Cordilleras, the Near North, the Far North, or any other area that satisfies the definition of a region.

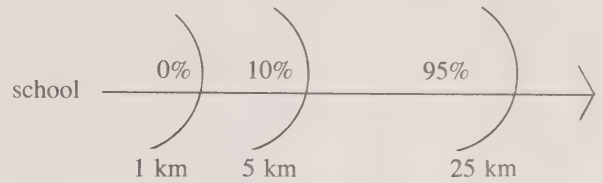
The essential ideas introduced in the study include:

- the location and major characteristics of the region;
- the differences between this region and others in Canada (particularly the local area);
- the historical base upon which the region has developed (this may be related to studies in the Canadian history course).

Strategy 1. Mapping Agricultural Patterns

For this activity, students will require the statistics in Table 9 and the base map in Figure 7. The statistics relate to the percentages of land used for agriculture in each of the counties. To obtain these percentages, the number of hectares of agricultural land was divided by the total area of the county (in hectares) and the resultant fraction multiplied by 100.

To establish a common understanding of the term “percentage of land in agriculture” the teacher could ask the students how much of the land within 1 km of the school is in agriculture.



Students can then estimate the percentage of land in agriculture in a number of areas near the school. Uses of the land other than agricultural should also be discussed (e.g., forest, water, muskeg, urban development, highways, barren rock). Topographic maps and aerial photographs are useful for this purpose.

Students should first colour or shade the legend on the map of the Maritimes. If they use graded shading, the lightest shading should be used for the lowest percentage and the darkest shading for the highest percentage. A similar effect could be obtained by using lighter and darker colours to indicate increasing intensity.

The students can then indicate to which category each county belongs by shading or colouring the oval in Table 8 in the appropriate manner.

Finally, the students shade or colour the counties on the map in the appropriate manner.

Figure 7: The Maritimes – Per Cent of Land in Agriculture by County



Table 9: Maritimes – Percentage of Land in Agriculture by County (counties are numbered)

Newfoundland	Nova Scotia	P.E.I.	New Brunswick
1. 3	1. 1	1. 53	1. 6
2. 0	2. 4	2. 57	2. 1
3. 0	3. 17	3. 37	3. 3
4. 1	4. 12		4. 16
5. 0	5. 14		5. 6
6. 0	6. 15		6. 4
7. 0	7. 15		7. 4
8. 0	8. 28		8. 26
9. 0	9. 10		9. 7
10. 0	10. 3		10. 9
	11. 3		11. 1
	12. 0		12. 3
	13. 2		13. 1
	14. 7		14. 5
	15. 3		15. 12
	16. 1		
	17. 1		
	18. 3		

Source: Derived from Statistics Canada data.

Many skills are involved in the actual completion of the map – eye-hand co-ordination, the presentation of statistical material in a graphic form, and the reinforcement of the concept of simple per cent.

Once the maps have been completed, they can be used to establish patterns in the geography of the Maritimes. Teachers may wish to focus on:

- the importance of agriculture in P.E.I.;
- the relationship between agricultural land and the physical nature of the environment (Why is there little agriculture in Newfoundland? Why do the lowlands and valleys have the most agriculture?);
- the study of a specific crop or region in the Maritimes (potatoes in P.E.I. or the St. John River Valley, tree fruits in the Annapolis Valley);
- the absence of agriculture as a major activity in some areas. Students may hypothesize about the prospects for forestry, mining, fishing, and manufacturing in these areas.

Strategy 2. Using a Reading Passage

Reading is an essential life skill. Opportunities should be presented in all curriculum areas for the students to practise and develop their reading skills.

Short passages may be used as teaching tools. When these are accompanied by films, pictures, records, filmstrips, maps, and diagrams, students are able to obtain accurate impressions of what places are like.

The following passage from Farley Mowat's *Black Joke* may be used to illustrate several aspects of traditional Newfoundland settlement patterns – dependence on the sea, isolation, limited community services.

On this spring day he gazed out over a familiar scene. The sun came streaming down over the surrounding cliffs and glinted from the white-painted walls of a dozen almost identical wooden homes which straggled along the south slopes. Ship Hole stood revealed as a typical Newfoundland fishing village, with its handful of houses facing the waterfront; its small square church, and the more imposing and concentrated cluster of buildings and wharves belonging to the local merchant. There were no roads in Ship Hole or vehicles either. Narrow, twisting paths connected the various parts of the settlement; but the sea was the real highway, and the whole life of the inhabitants depended on the sea. It was to the sea that the Ship Hole men went for their livelihood, for they were all fishermen, and it was by the sea that the only communications with the outside world were maintained. Inland lay hundreds of miles of mountain plateau and caribou barrens across which only the local Micmac Indians could make their way.

Farley Mowat. *Black Joke* (Toronto: McClelland and Stewart, 1962), pp. 4-6.

Introducing the passage is an important part of this strategy. Some teachers may wish to read the passage aloud, while others may prefer to have an individual student read the passage to the rest of the class. In either case, a copy of the passage should be provided for each student. Students should note that this is one person's impressions of the area. The students' understanding of the passage may be clarified by the following questions:

- What season is it?
- What is the weather like?
- Is the "he" in the passage new to the outport? How can you tell this from the passage?
- What size is the village? What words give you this information?
- Who owns the biggest buildings in the village?
- What tells you that the merchant's buildings and wharves are close together?
- Why might the merchant want his buildings and wharves close together?
- How do the inhabitants travel from one part of the village to another? What does this tell you about the size of the village?
- If you lived in this settlement, how would you get to another settlement? Why?
- How do the men of the village earn their living?
- What are the homes in the village like?
- What other buildings are found in the village?

Resource List

After the students have visualized the scene, the passage can be used as the basis for developing a simulated field sketch of the village. The students can first circle words in the passage that will help them to draw a picture of the scene. They can then draw a field sketch from the vantage point of the person in the passage.

The individual sketches may be used to highlight the essence of the scene. The feelings of the author and of the students regarding a Newfoundland outport can then be discussed.

The videotape program *Newfoundland: "You Can't Buy Freedom"* (Like No Other Place series) can be shown to illustrate how some Newfoundlanders feel about their homeland.

From the passage and their sketches, the students could also draw sketch maps of the outport. (They would probably need help from the teacher to draw the coastline.) Suitable symbols will have to be chosen for individual features that are found in the outport.

The films *The Brothers Byrne* or *Change by Degrees* could be used to complete the activities.



The following materials are recommended by Ontario teachers of basic-level courses and have been used successfully in the classroom.

Books and Kits

**Canada: This Land of Ours*. W. Wiley et al. Toronto: Ginn, 1976. Soft cover, \$6.24.

This book is a comprehensive text on Canadian geography. Teachers may find it useful for students whose reading ability is below average. The photographs in this text are particularly useful for picture studies.

**Canadian Communities*. James A. Carroll and Larry Milberry. Toronto: Ginn, 1975. Soft cover, \$5.88.

This text is particularly valuable for some of its exercises and pictures. Studies have been designed on several communities across Canada and could be a valuable resource in some local-studies units.

**The Canadian Landscape*. C. L. Blair and R. I. Simpson. Toronto: Copp Clark, 1978. Soft cover, \$9.25.

This text contains a variety of topographic maps and oblique and vertical aerial photographs from across Canada, which are particularly valuable for map and picture studies. Teachers should design their own exercises to meet the needs and abilities of their students.

The Changing City. Jörg Müller, New York: Atheneum, 1977. Available in Canada from McClelland and Stewart. \$11.60.

This series of eight pictures in the form of a mural illustrates the changes that have taken place in an urban area over a sixteen-year period. The mural can form the basis for a study of the changing urban environment.

The Changing Countryside. Jörg Müller. New York: Atheneum, 1977. Available in Canada from McClelland and Stewart. \$11.60.

This series of seven pictures in the form of a mural illustrates the changes that have taken place in a rural area over a nineteen-year period. The effects of urban growth on the countryside are clearly indicated.

Exploring Canada Through Maps. Thornhill, Ont.: Apple Press Publishing, 1971. Available from Oxford University Press. \$39.00.

This kit contains a series of fifty-two skill-based activities. Teaching students how to read maps is one important aim of each activity. The maps included are drawn from different areas of Canada and from different time periods.

*Listed in *Circular 14*

Map Concepts and Skills. Series No. 1: *Introducing Topographic Maps*; Series No. 2: *Topographic Map Symbols*. Alexander Grime. Toronto: Clarke, Irwin, 1976. Soft cover, \$4.80 for each series of 4 booklets.

These series of four booklets each offer an introductory approach to topographic map concepts and skills.

Films

The following films are recommended in connection with the topics developed in this document.

Boomsville. National Film Board, 1967. 16 mm, colour, 10 min

This animated film traces the growth of a typical city from a tiny settlement in the vast North American wilderness to a car-clogged metropolis.

The Brothers Byrne. National Film Board, 1975. 16 mm, colour, 22 min

This film studies the contrast between Newfoundland's present and past. It shows the resettlement of former Newfoundland outpost inhabitants.

Change by Degrees. National Film Board, 1975. 16 mm, colour, 10 min

A film of sensitive images of the remnants of a way of life in a small Nova Scotia coastal village.

The Changing Wheat Belt. National Film Board, 1966. 16 mm, colour, 13.5 min

The film shows trends in agriculture in the Prairie Provinces.

Drylanders. National Film Board, 1964. 16 mm, b/w, 70 min

This sensitive study shows the settlement of Canada's West through the history of one family.

The Energy Carol. National Film Board, 1975. 16 mm, colour, 10.5 min

This animated film looks at our use, waste, and need for conservation of energy as presented to Ebenezer Scrooge by the spirits of energy, past, present, and future.

The Lorax. Columbia Broadcasting System, 1972. 16 mm, colour, 25 min. Distributed by Holt, Rinehart and Winston.

This film introduces the Dr. Seuss character known as the Lorax, whose message is that we must clean up the environment and manage our resources before it's too late.

Videotapes

Like No Other Place. OECA, 1978.

Several programs are available, with more in the planning and production stages. The programs demonstrate the uniqueness of, and the similarities among, different areas, and how people have interacted with the land to cause varying kinds of development. In each program, one family is used as the vehicle for examining the area.

Newfoundland: "You Can't Buy Freedom". BPN 160101. Colour, 20 min.

P.E.I.: The Million Dollar Farm. BPN 160102. Colour, 20 min

The Concrete Corridor. BPN 160103. Colour, 20 min

The Price of Power. BPN 160104. Colour, 20 min

Teacher References

Several texts that are recommended in the Intermediate and Senior Division geography sections of *Circular 14* may be useful as teacher references on the geography of Canada. Other suggested teacher references include:

Discover Ontario Through the Road Map. Toronto: Ontario Ministry of Education, 1977.

This is a support document to *The Formative Years*. However, the exercises on road maps are suitable for students of all ages.

Energy in Society: A Resource Guide for Teachers. Toronto: Ontario Ministry of Education, 1977.

This resource guide contains many suggestions for student activities, as well as many illustrations, statistical tables, and other valuable information on energy.

Planning Matrix

Each topic in this support document has been used to highlight one or more of the major concepts, items of core content, and geographic skills outlined for the Canada course in *Geography, Intermediate Division, 1977*. The accompanying matrix has been provided to indicate which of the concepts, items of content, and skills have been highlighted in the development of each topic and which have received lesser emphasis. Teachers may wish to expand this matrix to ensure that all the recommended core content and skills are included in their own courses.

Key for Planning Matrix

- Primary Focus Within Unit
- Supportive to Primary Focus

Topics	Local Studies	Energy	Industry – Automobiles	Agriculture – Wheat	Urban Studies	Regional Study – Maritimes
Concepts – Nature of Studies in Geography						
1. areal differentiation	○			●	○	
2. constant change		○		○	●	○
3. global viewpoint		●	○	○		
4. people as choosers	●	●	●		●	○
5. regionalism						●
6. resources		○	○			○
7. round earth on flat paper	●	○		○	●	
8. spatial interaction		●		●	○	
9. support of life			○	●		●
Core Content – Canada Course						
1. energy		●	○			
2. industry and technology		○	○	○		○
3. local community	●	○		○		
4. population					●	
5. resources		○	○	○		○
6. urbanization					●	
7. major region						●
Skill Development – Canada Course						
1. translation of geographic information, e.g., from:						
– maps	●	○		○	●	○
– charts	●			○		
– graphs		○	●		●	
– the real world	●	○	○	○		
– pictures				●	○	○
– statistics		○	●		●	●
– prose						●
2. identification of pattern	●	○	○	○	●	●
3. seeking relationships	●	●	●	●	●	●